# NEWS IN School Health

**ADOLESCENT AND SCHOOL HEALTH UNIT** **FALL 1999**


## CANCER CONTROL: BEGINNING EARLY

Cancer is the second leading cause of death in the nation. While it usually strikes people beyond school age, children and adolescents can begin to develop healthy lifestyles, geared to lowering the risk of this disease and/or its progression. The school health program presents a unique set of opportunities: for the growing child, comprehensive health education offers information on prevention of many cancer risks, e.g., physical activity, healthful eating, and avoidance of smoking; for the maturing adolescent and staff members, the program adds the necessity for screenings and early detection; and, for the child with cancer, a well-prepared school environment will make the difference in learning, physical and emotional recovery, and social wellbeing.

Comprehensive health education, which includes both knowledge and skills, is key to developing behaviors which will serve the child well in the future. Schools are unique in being able to begin the process of behavior change early. Through classroom teaching and in-school programs, students can both learn about and practice healthful nutrition and physical activity behaviors. These behaviors may become so well integrated into their daily activities that they carry them into adulthood. Health education encourages avoidance of tobacco use with its risks for several types of cancer; however we must remain vigilant in our prevention and cessation efforts. In the area of liver cancer prevention, Massachusetts schools have demonstrated exceptional leadership by launching aggressive community education and hepatitis B immunization campaigns to ensure that all adolescents are immunized (for which the schools should be justifiably proud!). However, other areas, such as the prevention of skin cancer and colorectal cancer, deserve much more attention in our school settings and society as a whole.

Early detection is key to reducing cancer morbidity and mortality. As students learn about breast and testicular self-examinations and the importance of regular physical examinations, they can begin to take responsibility for these aspects of their health care. As members of families and neighborhoods, they are positioned to share this information with others that may be in the higher risk age groups. Health professionals practicing in the schools also have a responsibility to share information about early detection and recommended screenings with school staff.

While prevention and early detection are extremely important, the student with cancer deserves special attention. Coordination with the family and medical providers *and sensitive preparation of classmates and faculty* can greatly ease the student's transition back into the classroom, while creating a comfortable, productive learning experience for everyone.

Thank you.

Martha Wood
Director of Cancer Control

Anne H. Sheetz
Director of School Health Services

***"Cancer is a preventable disease. ….nearly two thirds of cancer deaths in the U.S. can be linked to tobacco use, diet, obesity, and lack of exercise - all of which can be modified through action, both at the individual and societal level." - Cancer Causes and Control. Harvard Report on Cancer Prevention; Nov. 1996: 1: S55.***


MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH
BUREAU OF FAMILY AND COMMUNITY HEALTH

# NEWS BRIEFS

**"COMM-PASS" - COMMONWEALTH OF MASSACHUSETTS' PROCUREMENT ACCESS & SOLICITATION SYSTEM:** All school districts should know about Comm-Pass. Comm-Pass allows school districts easy access to all of the information necessary to bid on many state contracts. To view a complete listing of all business and funding opportunities by category, or view a listing of opportunities limited to those offered by an individual purchasing entity (e.g., state department, authority, or other authorized purchasing organization) check out the website http://www.comm-pass.com/.

**INTRODUCTION TO SCHOOL NURSING IN MASSACHUSETTS:** This two-day orientation program, offered to new school nurses and required for MDOE School Nurse Provisional Certification with Advanced Standing, is being presented by the University of Massachusetts/Simmons College School Health Institute on the following dates: 9/17-18/99 and 2/4-5/00. Call the School Health Institute at (413) 545-0066 for further information.

**UNIVERSITY OF MASSACHUSETTS/SIMMONS COLLEGE SCHOOL HEALTH INSTITUTE:** The program descriptions for the 1999-2000 school year will be mailed to schools in early September**.**

**SAVE THE DATE: SCHOOL PHYSICIAN/NURSING LEADER CONFERENCE:** This year's conference will take place on 11/3/99. The focus will be on sports medicine and ongoing development of the school physician role in Massachusetts. School Physicians and School Nursing Leaders are encouraged to attend as a team. See School Health Institute brochure or call (413) 545-0066 for further details.

**THREE-PART HEPATITIS B PARENTAL CONSENT FORM:** The Joint Committee on Adolescent Hepatitis B Immunization has developed a consent form as an option for school-based hepatitis B immunization programs. The form contains an address sticker for the child's primary care physician. At the conclusion of the series, a copy of the immunization documentation record (three-part form) is (a) retained in the school health record, (b) given to the parents, and (c) sent to the primary care provider. Forms are available from your vaccine provider, i.e., Smithkline Beechum or Merck.

**SAMPLE EMERGENCY/HEALTH CARD**: Based on emergency card elements from various school districts, the school health staff has developed a sample emergency card in two formats. Included are questions on the student's health insurance status and a request to parents that they call the school nurse should they need more information. This is part of the Department's ongoing efforts to ensure that all Massachusetts children have health insurance. Copies of the forms have been mailed to superintendents.

**SCHEDULE FOR SCHOOL-BASED HEALTH CENTER MEETINGS:** School-Based Health Center meetings will be held at Keefe Vocational Technical School in Framingham on the following dates: Thursday, September 30, 1999; Wednesday, December 1, 1999; Tuesday, February 1, 2000; and Tuesday, May 2, 2000. Please contact Caty Sibble (617) 624-5474 if you plan to attend.

**COHES CONFERENCE:** This year's annual conference sponsored by the Coalition Organized for Health Education in Schools (COHES) will be held on Tuesday, November 2, 1999 at the Holiday Inn, Worcester. This year's theme for the conference is Making the Grade: Creative Strategies for Teaching Health. For further information, call (617) 441-0700, Ext. 210.

**FREE MANUAL & FUNDING AVAILABLE FOR NUTRITION & PHYSICAL ACTIVITY PROGRAMMING:** The Healthy Choices program is expanding! Several middle schools have received $5,000 each from BlueCross & BlueShield's *Jump Up and Go!* campaign to start a Healthy Choices program in the 1999-2000 school year. These new programs are modeled after a pilot started in Lawrence in 1994 and the overall objective is to encourage better nutrition and physical activity habits in middle school youth. The *Jump Up and Go!* Campaign plans to repeat this funding opportunity for the 2000-2001 school year, with Request for Proposal applications being made available this fall. The manual describing the model program, *Healthy Choices: A Guide for Designing School-Based Nutrition and Physical Activity Programs*, is vital to the application process should you decide to apply for funding. For a free copy of the manual and information on *Jump Up and Go!* funding, call Melissa Harrington at (617) 624-5492**.**

## SUN FACTS ON SKIN CANCER

**By Karyn Roach, Program Assistant**
**and**
**Martha Crosier Wood, MBA**
**Director, Cancer Control**
**Massachusetts Department of Public Health**

Though highly preventable, skin cancer is the most common of all cancers in the United States. Unprotected sun exposure is the major risk factor for developing skin cancer. Having had just one sunburn increases the risk of skin cancer three-fold**.**

Two forms of ultraviolet radiation from the sun cause skin damage: UVA and UVB rays. UVB rays cause the immediately visible damage of sunburns. Although UVA rays are less energetic than UVB rays, they are absorbed less efficiently by the atmosphere. Therefore, UVA rays are present in harmful amounts in the early morning and late afternoon—times often considered safe for sun exposure. Over time, UVA rays cause the skin to wrinkle, lose its elasticity, and develop ugly dark patches.

The American Cancer Society estimates there will be one million cases of skin cancer diagnosed this year. For many of these cases, the sun exposure that caused the damage occurred many years ago. In fact, 80% of our lifetime sun exposure occurs by the age of 18. Thus, developing sun protection habits early in life is the best defense against this disease.

Since the sun's rays are strongest and most direct between 10am and 4pm, sun exposure should be limited during these hours. Use sunscreen whenever outdoors—whether gardening, biking, or at the beach. Choose sunscreens and blocks with a sun protection factor (SPF) of at least 15. Also be sure to check the expiration date on the bottle. Sunscreens should be applied in the morning before dressing and reapplied at least every two hours throughout the day. Clothing such as hats and long-sleeve shirts and pants with a tight weave offer maximum protection. Even on cloudy, hazy days, cover-up because ultraviolet (UV) rays easily penetrate the clouds. Sand, water, and concrete reflect up to half of the sun's rays onto your skin even when in the shade.

Sun damage isn't limited to just the skin—eyes and lips can suffer as well. The sun can cause cataracts to form in the eye. This condition causes the lens of the eye to harden and becomes opaque, impairing vision. Polarized sunglasses labeled as protective against UVA and UVB rays block 99% – 100% of UV rays and offer great protection for the eyes and the sensitive skin around them. Lip balms with a SPF of at least 15 moisturize and protect the lips.

Avoid tanning salons, as they are no safer than natural sunlight. Skin can still burn, and tanning lamps actually supply more UVA rays than the sun. Furthermore, it is not true that a tan achieved from a sun lamp is a "basecoat" that will protect skin from burning. Tanned skin is damaged skin.

For more information on skin cancer prevention, contact:

The Massachusetts Department of Public Health
Cancer Control Initiative
617-624-5070
martha.wood@state.ma.us

The American Cancer Society
1-800-ACS-2345
www.cancer.org

The National Cancer Institute
1-800-4-CANCER
www.nci.nih.gov

## PREVENT LIVER CANCER THROUGH HEPATITIS B IMMUNIZATION

**By James Ransom, MPH**
**Senior Epidemiologist**
**Massachusetts Immunization Program**
**Massachusetts Department of Public Health**

Hepatitis B is a serious yet common disease of the liver. Approximately 350 million people worldwide are infected. About 4 million new cases of acute hepatitis B virus (HBV) infection occur worldwide each year, and there are more than 35 million chronic carriers. In the U.S., about 200,000 new cases of HBV occur annually, and 10% of these become chronic carriers. HBV infection is responsible for up to a million deaths annually worldwide and approximately 5,000 deaths each year in the U.S. In Massachusetts, 100 acute cases and 1,200 chronic cases have been reported annually over the past 5 years, but it is estimated that disease rates are actually much higher. Assuming a 5% lifetime risk of hepatitis B infection, up to 300,000 Massachusetts citizens have been or are currently infected with the virus.

The virus that causes hepatitis B is 100 times more infectious than the virus that causes AIDS and is transmitted by exposure to infectious bodily fluids--from mother to baby at birth, among household contacts, through unprotected sexual contact, and through sharing contaminated needles. Even sharing toothbrushes or razors increases the risk. The consequences of HBV infection are variable. The incubation period ranges from 6 weeks to 6 months and symptoms of acute infection can include fever, anorexia, nausea, vomiting, jaundice, dark urine, and abdominal pain. Newborns do not usually develop any clinical signs or symptoms. If your body cannot fight off HBV infection, and you become a chronic carrier, you may develop cirrhosis or liver cancer.

Worldwide, chronic hepatitis B infection is second only to use of tobacco products in causing cancer. The risk of chronic infection and complications varies with age and is highest (up to 90%) for infants infected at birth. Between 30 and 50% of children infected between 1 year and 5 years of age develop chronic infection, compared to 6-10% of acutely infected adults. Up to 25% of those infected as infants ultimately die from complications due to chronic infection, compared to 15% of those infected as adolescents or young adults.

There is no reliable treatment or cure for HBV infection. One-third of those chronically infected acquired disease at an early age and are at highest risk of complications, including liver cancer. A broad-based immunization strategy is needed to control HBV infection and its complications. Hepatitis B vaccine is the only vaccine that can

prevent a kind of cancer known as hepatocellular carcinoma. Currently, 85 countries worldwide and 42 states in the U.S. have adopted hepatitis B immunization programs.

Massachusetts is a leader in implementing school-based adolescent hepatitis B immunization programs. It has also vaccinated infants and young children against HBV infection since 1992 and has had a school-entry requirement since 1996. Beginning in September 1999, hepatitis B vaccine will be required for entry into 7th grade. These requirements provide an important public health safety net. They will ensure that children not already infected will be protected before they reach the age at which they are most likely to acquire infection.

For more information, call the Division of Immunization, Massachusetts Department of Public Health, (617) 983-6800.

## NUTRITION AND CANCER

**By Claudia Raya, Nutrition Intern**
**and**
**Maria Bettencourt, Director**
**Nutrition and Physical Activity Initiative**
**Massachusetts Department of Public Health**

We grew up hearing " An apple a day keeps the doctor away," and recent studies indicate that when it comes to cancer prevention, this bit of advice may be worth its weight in gold. The American Cancer Society (ACS) predicts that approximately one-third of the 500,000+ cancer deaths in the United States in 1999 will be nutritionally related. The American Institute for Cancer Research (AICR) reviewed over 4,500 studies, investigating the efficacy of diet. Their conclusion: "Cancer is a preventable disease."

Fruits and vegetables come to the forefront as key protective foods in cancer prevention. Eating the recommended five servings of fruits and vegetables a day may prevent 20% or more of all cancers. According to the World Cancer Research Fund, American Institute for Cancer Research the incidence of cancer can be further reduced 30-40% by incorporating physical activity and maintaining a

healthy weight in addition to the "recommended diet."

How do fruits and vegetables help to prevent cancer? They contain natural anti-cancer causing agents or cancer fighters called antioxidants and phytochemicals. An anti-oxidant works by stabilizing free radicals (a volatile substance that attacks the cell membrane) thus protecting the cellular membrane and DNA from oxidative damage. Some of the antioxidants found in foods are Vitamin C (mainly found in citrus foods) Beta-carotene (fruits and vegetables with yellow and dark orange pigment), and Vitamin E (found in plant seed oils.)

Phytochemicals are also a natural component of plant foods. They are the ingredients that give plants their pigment, taste, and smell and are being studied for their many roles in the prevention of cancer. In a study done at Harvard University, researchers found men consuming 10 servings of tomato-rich foods (high in the phytochemical "lycopene") per week may reduce their risk of prostate cancer by nearly half.

Less than 25 percent of Americans eat five or more daily servings of fruits and vegetables. But according to a recent phone survey, 36 percent know they should eat at least 5 A Day for better Health. September is National 5-A-Day Month. It is the perfect time to promote the benefits of increasing the amount of fruit and vegetable consumption in every American's diet. The National Cancer Institute and the Produce for Better Health Foundation challenge all Americans to "Get Fit with 5" by emphasizing the importance of both nutrition and physical activity in building a healthful lifestyle. The NCI Interactive web site provides help with personalized nutrition and physical activity information.

How can you get involved? Take the 5 A Day Challenge! Encourage students, co-workers, family, and friends to incorporate five or more servings of fruits and vegetables and to accumulate 30 or more minutes of physical activity each day this September. Promote 5 A Day school-wide. Put up posters in classrooms, hallways, cafeterias and teacher lunchrooms. Give out stickers, brochures, and have fresh fruit and vegetable demonstrations during the month of September or another month.

Get your school cafeteria involved! Encourage them to feature at least one fresh fruit dessert at lunch every week. Have them highlight the vegetable side dishes offered with a handout or bulletin board on why fruits and vegetables are an important part of your diet. Have students develop table tents highlighting fruit and vegetables as a class activity and coordinate with the school food service director to feature a different fruit and/or vegetable each week for a month.

You can have students participate in the 5 A Day as part of their curriculum. Sponsor a poster contest on "How to get at least five fruits and vegetables into your diet each day." Have science classes perform an experiment that shows how fruits such as citrus fruits act to prevent oxidation or browning of fruit. You can also have the kids do a survey of all the fruits and vegetables that are offered as snacks in the cafeteria or share information on fruits that are particular to their cultural backgrounds.

For homework, have your students keep a log of how many fruit and vegetable servings they eat in a day. Encourage them to get their families involved with their project. Have them sign a contract that states they will try to eat at least five servings of fruits and vegetables for one week during National 5-A-Day Month.

**Resources**

To obtain information that will help your school meet the challenge of "Get Fit with 5," visit the NCI web site at www.5aday.gov. It includes publication lists, news, promotions, recipes/tips, state programs, clearinghouse and interactive website for consumers on 5 A Day and physical activity. Other internet resources include the Dole website at www.dole5aday.com or Sunkist at www.sunkist.com and www.toyboxc.com.

You can request "5 A Day Week 1998 Toolkit: School Activity" to help you get more ideas on getting your school or community involved. You can also call the NCI Division of Cancer and Population Studies (DPCCPS) at (301) 496-8520. For free brochures, contact the National Institute of Health and request "Eat More Fruits and Vegetables" Publication No. 92-3248.

Don't forget to visit the DPH Health Promotion Clearinghouse web site www.maclearinghouse.com or call (617) 624-5440 for ideas on how to implement 5 A Day in your school or community.

## PHYSICAL ACTIVITY AND CANCER

**By Gene Babon, MS, FAWHP**
**Physical Activity Coordinator**
**Massachusetts Department of Public Health**

The cause of most childhood cancers is not known. Unlike cancer in adults, pediatric cancers do not seem to be significantly related to lifestyle factors such as lack of physical activity, poor diet, and tobacco/alcohol use, according to the American Cancer Society.

However, many of the lifestyle behaviors that influence cancer risk in adults begin in childhood. Therefore, it is essential to promote strategies for increasing physical activity among both children and adults.

**Physical Activity and Cancer**

Physical activity can help protect against some cancers. The mechanisms for cancer prevention are unclear, but balancing caloric intake with energy expenditure appears to be one factor. An imbalance of caloric intake and energy output can lead to being overweight or obese. Nationally, 55% of all adult Americans are carrying an unhealthy amount of weight.

Being overweight or obese increases the risk for cancers at several sites: colon and rectum, prostate, endometrium, breast (among postmenopausal women), and kidney, according to the American Cancer Society. Both physical activity and controlled caloric intake are necessary to achieve or to maintain a healthy body weight.

One recent research study published in the July 1999 issue of the *British Journal of Cancer* revealed that exercising four hours a week for 12 years appears to reduce breast cancer risk by 50 percent.

**Exercise vs. Physical Activity**

Structured exercise programs (going to a gym, taking an aerobics class, and jogging, for example) are the more traditional methods to improve physical fitness levels. However, a physical activity approach (taking the stairs instead of using the elevator, for example) can be just as effective as a structured approach in improving cardiovascular risk profiles in sedentary and overweight individuals. This research was documented in the January 27, 1999 issue of the *Journal of the American Medical Association*.

**Resources**

Here are a few resources to stay informed and help educate others on lifestyle issues including cancer and exercise.

A low-cost video entitled "Preventing Cancer: Five-Step Plan" can be ordered from the Cancer Research Foundation of America (CRFA) (1). This 15-minute educational tool includes exercise as one of the five lifestyle strategies for reducing cancer risk by up to 70%. Cost: $15.

Another tool available from the CRFA is "Dr. Health'nstein's Body Fun," an interactive CD-ROM for children 8-12 years of age. This educational resource is available to help future generations of American adults understand the importance of healthy dietary and lifestyle choices. Cost: $1

To stay informed of the latest health pro research and learn more about interactive res available from the Internet, access *lectron*HE (2). A free weekly e-mail version is available for allied health professionals.

**Let's Get Physical**

So, how do we get children and adults to be more physically active? One strategy is to participate in National Walk Our Children to School (3). The event was established to encourage adults and children to walk to school together and in the process, raise national and individual awareness about health, safety, and walkability. This year's event is scheduled for **Wednesday, October 6, 1999.**

For detailed information, access the "Walk Our Children to School Information Kit" (4) provided by the National Safety Council. Only one school in Massachusetts, the Edith Baker Elementary in Brookline, participated in last year's event. Act today and you can help your school and community achieve a passing grade in physical activity during the next school year.

References:

(1) www.preventcancer.org
(2) www.lectronhealth.com
(3) www.shapeup.org/fitness/nwocsd
(4) www.nsc.org/walkable.htm

Walk to Our Children to School Day is just one of many physical activity initiatives promoted as part of the Department of Public Health's Mass*Moves* Campaign. To learn more about Mass*Moves*, contact:

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## BREAST CANCER: PREVENTION, SCREENING AND EARLY DETECTION

by Deborah A. Katz, MS, Assistant Director,
Massachusetts Women's Health Network

Breast cancer accounts for slightly more than a third of all cancers found in Massachusetts women. With the exception of skin cancer, breast cancer is the most common form of cancer in women. Risk of developing breast cancer increases with age, in fact, 75 percent of breast cancers occur in women with no risk factors other than age.

**Risk Factors and Risk Reduction**

Along with simply growing older, one of the major

factors placing you at higher risk may be having a sister, mother, or daughter who has had breast cancer, especially if her cancer occurred before she entered menopause.

Other risk factors for breast cancer include:

- Late age of first birth or never having had a child
- Prior personal history of breast cancer
- Radiation therapy to the chest area (for example, in the treatment of Hodgkin's disease)
- Early menstruation or late menopause, both of which result in a woman menstruating over a longer period of time

The above risk factors generally cannot be altered. Yet, some "weaker" factors may be a matter of choice. For example, studies have shown that consuming more than three alcoholic drinks per day may increase your chances of developing breast cancer. Eating a high fat diet, not getting enough physical activity, and exposure to pesticides and PCBs may also be risk factors. There is a possible link between taking estrogen and breast cancer.

**Screening Recommendations**

The earlier the disease is found, the greater the chance of successful treatment. Every woman age 20 and older should examine her own breasts on a monthly basis, three to five days after the end of each period (or for those no longer menstruating, on the same day of each month.) Women age 40 and older should also have an annual clinical breast exam and mammogram.

Symptoms

The warning signs of breast cancer include:

- A lump or thickening of the breast or armpit
- Bloody discharge from the nipple
- Changes in the skin or the nipple
- Swelling, redness or the sensation of heat in the breast
- Unusual, persistent pain or tenderness in the breast, arm or chest wall.

If you notice a symptom, call your doctor.

**Helping Young Women Begin Breast Care**
Breast cancer is exceedingly rare in women under 30 years of age. But it is an important that girls in their teens establish lifelong habits that will promote early detection and reduce the risk of breast cancer. Healthy lifestyle practices such as physical exercise, lower fat diet and limited alcohol should be promoted. Health classes should teach effective breast self-examination (BSE) techniques. Girls should learn the importance of seeking primary care on a regular basis, as well as the skills needed to be an active participant in their own healthcare.

**School Staff**
A study conducted by the National Institute for Occupational Safety and Health (NIOSH) has indicated that teachers have an elevated mortality rate from breast cancer. The same study also reveals that breast cancer is more pronounced among African-American women. The National Education Association's *Project Reach* focuses on increasing awareness and screening among members of the school community. See its web page at www.nea.org for more information.

Other useful web pages include:
American Cancer Society at
http://www.cancer.org/bcn.html

National Cancer Institute at
http://cancernet.nci.nih.gov

The Cancer Information Service at
http://cis.nci.nih.gov

Breast Cancer Resource Guide of Massachusetts at
http://www.breasted.org

**Free Screening**
The Massachusetts Department of Public Health's Women's Health Network (MWHN) funds medical agencies throughout the state to provide free breast and cervical cancer screening and diagnostic services to uninsured, income-eligible women 40 years of age and older. For more information, call toll-free 877-414-4447.

## TEACHING SELF SCREENING TECHNIQUES TO ADOLESCENTS

**By Marlene S. Mailloux, MS.RNC-FNP**
**South High School, Worcester MA**

Adolescents, both male and female, should be taught how to be responsible for their health care. For this reason I have taught classes in breast self-examination and testicular self-examination at South High for the past ten years.

Adolescent females are not at risk for breast cancer, but it is important for them to start breast self-examination by age 20. Many of these women will not be taught breast self-examination in any other setting. They often will not be receiving health care maintenance on a regular basis, but will seek acute care visits only. There are several goals in teaching and motivating these young women. They will begin a life-long good health habit in doing breast self-examination as they become increasingly more at risk as they age. One in eight women are diagnosed with breast cancer over the span of a lifetime. Second, the teens live with people who are at risk for breast cancer: older sisters, mothers, aunts and grandmothers. The young women will be the teachers in their household.

The subject of breast self-examination is challenging to teach to adolescent females. In this stage of development they are self conscious about touching themselves and fearful of any discovery. Using a video and a prosthesis of a breast borrowed from the American Cancer Society, demonstrate breast self-examination. Each girl has the opportunity to use the prosthesis with individual attention to her technique.

These young women need to hear that most breast lumps are not cancer. Often a lump can be found in an early stage and treated successfully as a result of monthly breast self-examination. I reinforce my

teaching with their visits to the school health center or teen clinic. With all the students that have come with breast lump concerns, only two were referred to their primary care provider with benign solid masses. Since some breast cancers may not be prevented due to family history, genes, or age, early detection is our best alternative. This should be started in the teen years with breast self-examination.

Cancer of the testicle is very rare, affecting only one in every 10,000 American males between the ages of 15-35 years. This is the most common cancer found in men in this age group. However, while performing sports physicals I learned that even though at risk, the high school athletes were unaware of testicular cancer. Very few boys even knew of it, and those who did usually failed to do testicular self-exams. Looking at the rarity of this cancer, the adolescent male would rather skip this type of self-exam. Simply stated, if the male finds a lump, painful of not, or a swollen testicle, his risk has increased. One story that I tell is of a high school boy became aware of a lump in his testicle but was embarrassed by the location and failed to tell anyone until pain was a symptom. He died a year later from testicular cancer.

Every lump or nodule is not cancer, but it should be checked by a healthcare professional and an ultrasound should be done if necessary. At the school based health center we have found testicular lumps, but none have been diagnosed as cancer. Testicular cancer is one of the most curable forms of cancer, with studies showing a cure rate of 90% in all stages. Utilizing a video and a testicular prosthesis borrowed from the American Cancer Society, the boys are taught to perform testicular self-examination. A demonstration is done with individual attention, and a pamphlet is provided to remind them how to do it. Performed once a month in the shower, it takes only a few seconds and could save their life.

Teaching screening techniques to the adolescent population makes each one of them a participant in his or her healthcare.

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## CERVICAL CANCER PREVENTION AND EARLY DETECTION: FREQUENTLY ASKED QUESTIONS

**By Janice Mirabassi, MA, Acting Director**
**Women's Health Program**
**Massachusetts Department of Public Health**

In 1996 an estimated 15,700 women in the U.S. were diagnosed with cancer of the cervix, including 320 Massachusetts women. Cervical cancer is found among women in many age groups: the rates begin to increase in women ages 20-44, and reach peak incidence in women 65-74 years of age.

The incidence of cervical cancer varies widely by racial group. National data on four racial groups indicate that 7.5/100,000 caucasian women are diagnosed with cervical cancer annually; 13.2/100,000 black women; 16.2/100,000 Hispanic women; and 43/100,000 Vietnamese women.

**What are the risk factors for cervical cancer?**
Unlike many types of cancer, cancer of the cervix is not hereditary. Some of the risk factors for cervical cancer are:

- Presence of HPV (human papillomavirus) either in the patient OR the patient's sex partner.
- Smoking - either active smoking or excessive exposure to passive smoke (nicotine pools readily in cervical mucous). Smoking also reduces the likelihood of successful treatment of pre-cancerous or cancerous conditions.
- Sexual intercourse prior to the age of 18.
- Multiple sex partners, or having a partner who has/had multiple partners.
- In utero exposure to DES (a drug given to pregnant women between 1939 and 1971.)
- Weakened immune systems (e.g., from AIDS or organ transplant.)

**Cervical Cancer Is Preventable**
Experts agree that *almost all cases of cervical cancer can be prevented* if pre-cancerous conditions of the cervix are promptly diagnosed and properly treated. With little exception, cervical cells show

signs of abnormal changes (dysplasia) long before any malignancy develops. Pre-cancerous cell changes may begin a decade or more before they evolve into a cancer. The development of the Pap test (by Dr. Papanicolaou in 1920) provided a way to assess cervical cells in the early stages of change. Routine eradication of abnormal cells detected via Pap tests eventually lead to a 73% reduction in cervical cancer mortality. The Pap test continues to be an excellent way to screen for cervical cancer.

**Frequency of Pap Test**

Women age 18 and older - and sexually active girls of any age - should have an annual Pap test and pelvic exam. Since Pap tests are not infallible and abnormal cells are sometimes not "captured" on the Pap, it is essential to have a Pap test every year. Women at high risk may need to have more frequent Paps; women at *very low risk*, following three successive normal Paps, may only need a Pap every 2-3 years. Women who have had a total hysterectomy (the cervix has been completely removed) may no longer need a Pap, but will still need an annual pelvic exam. Women who have had a subtotal (partial) hysterectomy still need a Pap test.

**How to Prepare for a Pap Test**

Since blood can obscure the cervical cells on a Pap test, a woman should schedule her Pap when she is not menstruating. For about 48 hours before the test, women should not douche or have vaginal intercourse, and should avoid using lubricants, contraceptive foam, cream, jelly or vaginal medications (except per instructions of a clinician.)

**Abnormal Pap Tests**

If a Pap test is abnormal, a clinician will recommend a follow-up procedure. These may include one or more of the following: repeat Pap test(s); colposcopy (a type of microscope that views the cervix); biopsy; cryosurgery (freezing); cauterization (burning); laser surgery; LEEP (loop electrosurgical excision procedure - a mild electric current passed through a thin loop of wire); or conization (removing a cone-shaped piece of the cervix.)

School health staff have a role in educating teens about cervical cancer.

Tell students:

- Choosing not to be sexually active before the age of 18 reduces your risk of cervical cancer.
- If you are or have been sexually active, you need to guard your health by having an annual Pap test.
- If you have an abnormal Pap test, it is essential to keep all follow-up and treatment appointments. Even if you feel fine, untreated cervical conditions can result in infertility, hysterectomy, the need for aggressive cancer treatment or death.

You can get a confidential, low-cost Pap test at a health center or family planning agency in locations across the state.

**Resources**

Information for women of all ages on cervical cancer prevention, screening, diagnosis, treatment, and clinical trials can be obtained through the American Cancer Society, the National Cancer Institute and the Cancer Information Service (see Breast Cancer article for web sites.) To learn about professional education opportunities on the topic of cervical cancer, contact the Women's Health Network (toll-free) at 877-414-4447 or the Massachusetts Department of Public Health's Statewide Referral number at (617) 624-6060.

## CHILDHOOD CANCER IN MASSACHUSETTS

**By Laurie A. MacDougall, M.S.**
**Massachusetts Cancer Registry**

**E**very year, approximately 265 Massachusetts children and teenagers are diagnosed with cancer (about 90 cases in children under the age of 5, 50 in children aged 5-9, 50 in children aged 10-14, and 75 in teenagers aged 15-19.) Cancer is slightly more

common in boys than in girls in all age groups. The types of cancer with which children are diagnosed vary with age. Overall, about 23% of childhood cancers are leukemias, 17% are of the brain and central nervous system (CNS), 8% are Hodgkin's Disease, 8% are sarcomas (tumors arising from connective tissue, such as bone or muscle,) 7% are non-Hodgkin's lymphomas, and 6% are kidney cancers (primarily Wilms' tumor.) Among younger children, leukemias and cancers of the brain and CNS predominate, while Hodgkin's disease and non-Hodgkin's lymphomas occur more often in adolescents.

There is some good news in the fight against childhood cancer. According to the National Cancer Institute, the incidence of childhood cancer (new cases) has leveled off in the past decade; mortality (deaths) has decreased nearly 50% between 1973 and 1996; and survival rates have increased dramatically since the 1970s. One result of these advances, however, is that more children than ever before are survivors of cancer. Based on data from the Connecticut Tumor Registry, we estimate that approximately 1,800 children in Massachusetts either currently have cancer or have had it in the past. This makes it increasingly likely that school health professionals will have students who have or have had cancer.

There are a number of places to obtain further information about childhood cancers. Two of the best are the National Cancer Institute (NCI) and the American Cancer Society (ACS). The NCI runs the Cancer Information Service (CIS), a national toll-free telephone service that provides information on cancer to patients, the public and health professionals. The CIS can be reached at 1-800-4-CANCER (1-800-422-6237, TTY 1-800-332-8615.) CancerNet is another NCI resource, and is an Internet service that provides fact sheets, summaries on state-of-the-art care, and links to the latest articles on cancer from medical journals to a variety of users. It can be found at http://www.cancer.net nci.nih.gov. The NCI Kids' Home web site http://cancernet.nci.nih.gov/occdocs/KidsHome.html has information specifically for children with cancer and their families. The American Cancer Society also has a toll-free hotline, which can be reached at 1-800-ACS-2345 (1-800-227-2345.) Its Internet site at http://www.cancer.org contains a wealth of information designed for the general public, and a comprehensive list of links to other Internet web sites dealing with cancer. The ACS web site also has a Cancer in Children Resource Center, which can be reached from the home page by clicking "Children" on the menu on the left side.

## NO HATS IN THE BUILDING

**By David Shulman**
**Framingham High School**

My name is David Shulman and I am currently a sophomore at Framingham High School. In December 1995 I was a sixth grade student at Fuller Middle School and I was diagnosed with cancer. The following is a little bit of my story. I can be reached by email at Beatles128@AOL.com.

"No hats in the building" is a common phrase used by all the teachers at Fuller Middle School. I changed that rule very quickly. When I was in the sixth grade I was diagnosed with large cell non-Hodgkin's lymphoma. I always wanted to be different and this was my chance to shine. A couple of weeks after I got my first chemotherapy treatment, I lost my hair from my head to my toes. For many people this would be an upsetting concept, but for me, I was ready to show everyone that it is what you have on the inside that really counts.

I was out of school for several weeks. When I returned, my nurse from Children's Hospital came to school to speak with the 6th grade students and teachers and explain about my illness. After that, my teachers were understanding and treated me like a king. The school nurses were great too. I knew I could always go to them if I had a problem. But, I never felt the administration really cared. They never spoke a sincere word to me. Many kids in the school looked at me funny, or mocked me with the always repeated words, "no hats in school." Some

went as far as taking my hat off and throwing it. I think it would have helped if the administration spoke to all the kids in the school about me. But, not all kids were insincere, and I developed some life-long friendships during that time. My best friend in the school was Wayne. He was always there for me.

Seventh grade started and I was there only two days before I was brought to the hospital for almost a month. When I returned to school things were a lot different. My 7th grade teachers treated me like a normal student, a student that was perfectly healthy, and could give 100% all of the time. This was offensive to me because I could not give 100% any time. I did not have 100% to give. The teachers eased off a little after my mother spoke to them, but school was still an uncomfortable place for me. In October I was asked by the Jimmy Fund to participate on a panel with other kids. We discussed with school personnel what could be done to make things more comfortable for us. My mother informed my school of the event. As I took my seat on the stage and looked out into the audience, there was not one face from Fuller Middle School. I was definitely hurt to find out that my school did not want to be involved with my sickness.

All in all, in my experience, school systems and cancer do not mix well. I know I was not always given the help and support I needed. I now realize that society does not always pay attention to the things it should. I hope the school has learned that a cancer patient should be treated differently than other students. We are not like other students. We have special needs and school should be there to help you, not make it hard for you. There is another cancer patient in that school now and I hope she is being given the respect and help she needs and deserves.

## BACK TO SCHOOL: EDUCATING SCHOOL COMMUNITIES ABOUT CHILDHOOD CANCER

**By Kathy Houlahan, RN**
**Children's Hospital**

The diagnosis of cancer in childhood is devastating and affects the child, his or her family and community in many ways. Returning to school can be one of the most difficult challenges for the child with cancer.

The Back to School program at the Dana-Farber Cancer Institute and Children's Hospital is designed to ease the child's transition back to the classroom. In addition, school personnel and the child's classmates are prepared for the child's return. The main goals of the program are to increase the understanding of the psychosocial, emotional and educational issues faced by children with cancer in addition to encouraging social support.

Specially trained hospital staff visit the school when the child is ready to return to the classroom. The team tailors the presentation to the needs of the child, his or her classmates and school, according to the child's age, disease and medical condition. During the presentation, the child's disease, treatment side effects and medical procedures are discussed. The emotional aspects of having cancer, feeling different and struggling with treatments and side effects are discussed. Myths or misconceptions about cancer are also addressed.

Teaching tools used in the presentation vary, depending on the age of the child and size of the audience. Options include: videos, slides, medical teaching dolls, puppet shows and written materials. Time for a question and answer period is also included. To assist school personnel, a Back to School curriculum is available to answer questions about cancer, cancer treatment and the special issues faced by a child with cancer. To accompany the curriculum, classmate materials are available to encourage continued learning after the hospital staff completes the school visit.

The School Liaison Program is available to children diagnosed with leukemia or a brain tumor, whose cancer or treatment resulted in learning difficulties or problems affecting their school experience. The program provides neuropsychological evaluation, and ongoing consultation with families and school systems to address the child's educational needs.

Back to School program contacts:

**Children's Hospital:**

- Kathy Houlahan, RN, BA, Ed
  617-355-7665
- Eileen Hughes, MS CLS
  617-355-9079

**Dana-Farber Cancer Institute**

- Terry Sievers, MS, RN
  617-632-3363
- Lisa Scherber, MS
  617-632-3278

## HEALTH INSURANCE FOR CHILDREN AND ADOLESCENTS

**By Michael Richards**
**Massachusetts Division of Medical Assistance**
**and**
**Maureen McHugh**
**Massachusetts Department of Public Health**
**Bureau of Family and Community Health**

School nurses and school-based health center nurse practitioners know that uninsured children are less likely to receive the kind of primary and preventative care needed to remain healthy. When children miss school because of preventable illnesses, or are unable to have correctable problems diagnosed and addressed, their education suffers. Nurses and other school-based health professionals know that children suffering from untreated problems are unable to concentrate on learning.

We now know that schools are a good place to identify uninsured children and provide families with information about free or low cost health insurance coverage available through MassHealth and the Children's Medical Security Plan (CMSP). This year, the school-based effort to identify and enroll uninsured and underinsured children will be highlighted. School nurses will again play a very significant role in ensuring that all children living in Massachusetts have access to health care.

Here are a few suggestions that work:

- Review health insurance status at school entry points such as kindergarten registration and time of transfer into school.
- Include on the emergency card a question about the child's health insurance coverage. Consider including a sentence that states: "if you would like information about available health insurance options, please call _____, (Title, e.g., School Nurse".)
- Work with a Health Care Access project "mini grant" program in your area. For help identifying the mini grant program(s) nearest you, contact Jacqui Williams at the Department of Public Health [(617) 624-6067] or Mike Richards at MassHealth [(617) 210-5736]. You may also contact Jacqui Williams with your requests for information (brochures, fact sheets, etc.) for special school events (e.g. fairs, parents' nights, etc.). She may also provide you with staff to enroll children at appropriate school functions.
- Remember the Maternal Child Health Access Helpline 1-800-531-2229 as an information source for your questions about provider and eligibility issues. Located in the six Regional Public Health Offices, a culturally competent, multilingual staff provides applicants with enrollment assistance and extensive follow-up until coverage is accessed. In addition to enrollment assistance, Health Access Specialists also can provide information and referral to all Maternal Child Programs, as well as local community-based services. They are also an accurate and "user-friendly" source for information about how to use health care plans and the corresponding member responsibilities, which if not understood, can create barriers to maintaining coverage or accessing services. If you need additional assistance or information, you may also ask to speak directly with the Coordinator for the MCHAccess Unit in your area.

Maternal Child Health Access Coordinators

| | |
|---|---|
| Rebecca Rivera | Northeast Regional Office |
| Donalda Silva | Southeast Regional Office |
| Kimberly Woods | MetroWest Regional Office |
| Pamela Hurley | Central Regional Office |
| Pamela Smith | Western Regional Office |
| Careline Romain | Boston Regional Office |

- Include information about the Children's Medical Security Plan and MassHealth in school publications (e.g., informational book for parents, school health services brochures, etc.).

# REMINDER: NEW SCHOOL ENTRY IMMUNIZATION

# REQUIREMENTS EFFECTIVE IN SEPTEMBER, 1999!!!

| Required at Entry to… | **New Requirements** | **Existing Requirements**<br><br>**To Remain in Effect** |
|---|---|---|
| | Effective 9/1/99 | |
| Preschool | • **1 dose varicella [1]** | • **≥ 4 DTaP/DTP**<br>• **≥ 3 polio [2]**<br>• **1 MMR**<br>• **≥ 3 Hib**<br>• **3 hepatitis B [3]** |
| Kindergarten | • **1 dose varicella [1]**<br>• **4 doses polio [2] (if a mixed IPV/OPV schedule is used)** | • **5 DTaP/DTP**<br>• **2 MMR [5]**<br>• **3 hepatitis B [3]** |
| Grades 1-6 | **---** | • **≥ 4 DTaP/DTP**<br>• **≥ 3 polio [2]**<br>• **2 MMR [5] (K-3)**<br>• **3 hepatitis B [3] (K-2)** |
| Seventh Grade | • **3 doses hepatitis B**<br>• **1 or 2 doses varicella [1]**<br>• **1 Td booster (if ≥ 5 years since the last dose. Td will no longer be required in grades 10-12).** | • **≥ 4 DTaP/DTP**<br>• **≥ 3 polio [2]**<br>• **2 MMR [5]** |

**[1] The varicella requirement is effective 9/1/99 at all day care or preschool centers, except those licensed by OCCS, which was effective 8/1/98. This requirement applies to all children who are without a physician-certified reliable history of chickenpox disease, which consists of 1) physician interpretation of parent/guardian description of chickenpox; 2) physician diagnosis of chickenpox; or 3) serologic proof of immunity.**

**[2] 4 doses are required, unless the third dose of an all OPV or all IPV series is given after the 4th birthday, in which case only 3 doses are required.**

**[3] Serologic proof of immunity is acceptable.**

**[4] 2 doses measles, 1 dose mumps, 1 dose rubella**

**Please review Massachusetts Department of Public Health's 1999 *Immunization Guidelines* for further details regarding the immunization schedule and requirements for school entry or call the Massachusetts Immunization Program at (617) 983-6800.**

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